

National Space Grant Student Satellite Program

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The National Space Grant Student Satellite Program

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Across America, Space Grant students are learning from the ground up—literally—by designing, building, flying and operating a broad range of spacecraft. Students come with an interest in Space, but with different levels of skill, knowledge, and experience. Missions of growing complexity provide opportunities to acquire baseline skills and then to build on them. They range from the simple—building soda-can “satellites” or small payloads for launch from small rockets or balloons—to building sophisticated satellites. We call this strategy “crawl”, “walk”, “run” and “fly!”

Crawl

Walk

Run

Fly

<http://ssp.arizona.edu/sgsatellites/mission.shtml>



Montana BOREALIS Program



Colorado BalloonSats

CRAWL



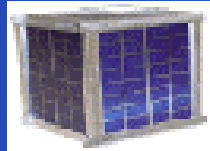
Arizona CanSats





Arizona CubeSat Program

WALK



Montana MEROPE program



Alaska Student Sounding Rocket Program



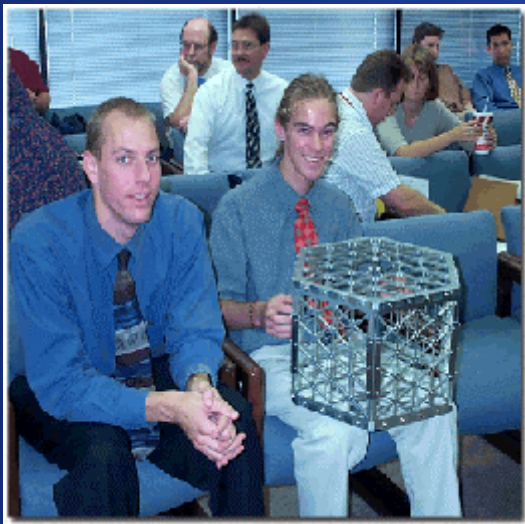


Arizona State University
ASUSat 1

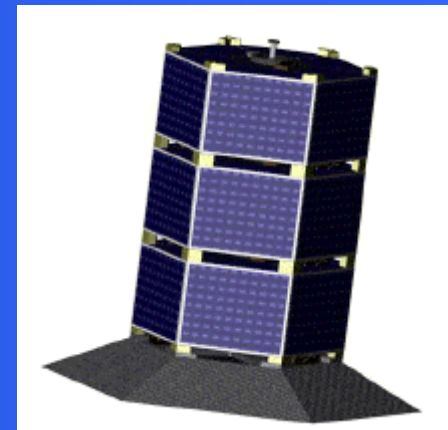


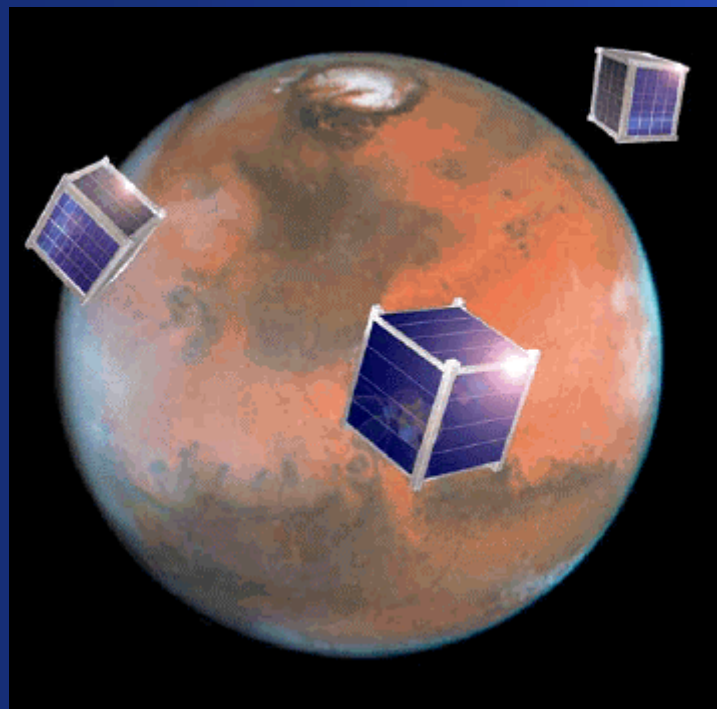
Colorado Space Grant's Citizen Explorer 1

RUN

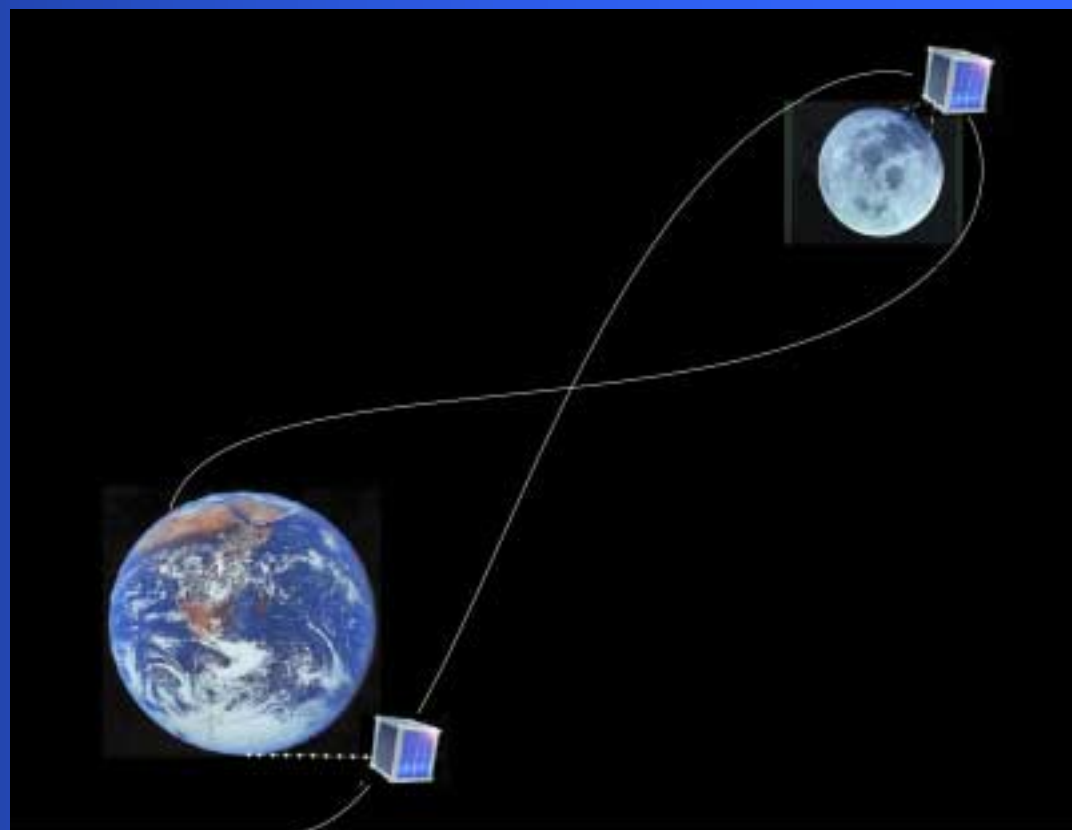


Colorado, Arizona, and New
Mexico: Three-Corner Sat





FLY



What is *Crawl, Walk, Run, Fly?*

- Across the country, the National Space Grant Student Satellite Program is growing and developing new opportunities for students to be directly involved in building space hardware.



(1) Additional Space Grant Consortia are becoming active participants in the NSGSSP.

Universities become involved at levels suited to their experience, expertise, and resources.

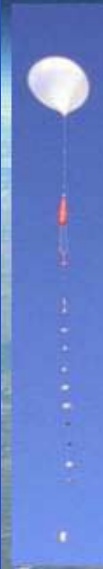
Learning To Crawl A How To Workshop

**June 20 – 22, 2002
Boulder, Colorado**

Come to Colorado for 3 days this June and go home with the tools and knowledge to start your own successful crawl program. This workshop will provide you with detailed information and instructions on how to duplicate current crawl programs. You will gain hands-on experience while building your own versions of crawl experiments, including building and launching your own BalloonSat to 100,000 feet (weather permitting). You will leave this workshop with the confidence to provide these opportunities to your students.

Registration includes workshop book, equipment for hands-on activities, breakfast, lunch, snacks, and demonstration materials. Register by June 10, 2002 on-line or by fax with enclosed form. Workshop will be held on the University of Colorado campus.

Fax: 303-492-5456
Online: spacegrant.colorado.edu/crawl



Background image of Colorado Rockies taken by Student BalloonSat at 100,000 feet

(2) New partnerships are actively being sought and developed, between colleges and universities and NASA Centers, the Air Force, aerospace industries, and others.

These partnerships can involve:

- Mentoring of students by active aerospace scientists/engineers
- Student internships in aerospace research centers and industries
- Center/industry provided mission concepts, hardware, materials, facilities, etc.
- Coordinated launch opportunities

(3) We are expanding capabilities at universities already involved in student space hardware projects.

Our goal is to have all 52 Space Grant Consortia involved in programs at all four levels:

Crawl – Walk – Run – Fly

As opportunities expand, students may become involved at multiple levels:

- Freshmen may choose science and engineering majors due to an exciting CanSat or ballooning program they were involved in.
- Junior and senior undergraduates may build, fly, and operate CubeSats in LEO.
- Master's degree students may build cutting-edge research instruments that will travel to Mars, or be part of an X-ray telescope, in tomorrow's leading space research missions.